

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

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In re application of:

**KAZUO OKADA**

Group Art Unit: 3716

Serial No.: 10/697,027

Examiner: Ryan Hsu

Filed: October 31, 2003

Confirmation No.: 1099

Docket No.: 247079-000772USPT

Customer No.: 70243

For: **GAMING MACHINE**

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**APPEAL BRIEF UNDER 35 U.S.C. 134**

**MAIL STOP APPEAL BRIEF – PATENTS (VIA - EFS)**

COMMISSIONER FOR PATENTS

United States Patent and Trademark Office

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Commissioner:

In response to the final rejection of claims set forth in the Office Action of August 10, 2011, a Notice of Appeal was filed on December 12, 2011, pursuant to 37 C.F.R. § 41.31, concurrent with the corresponding fee set forth in 37 C.F.R. § 41.20(b)(1). In support of the Notice of Appeal, Appellant now submits the following Appeal Brief and corresponding fee pursuant to 35 U.S.C. § 134 and 37 C.F.R. §§ 41.37 and 41.20(b)(2), for the above identified application. In compliance with 37 C.F.R. § 41.37(a)(1), this Appeal Brief is being timely filed within two months from the filing of the aforementioned Notice of Appeal.

To the extent necessary, please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Nixon Peabody, LLP, Deposit Account No. 50-4181, Order No. 247079-000772USPT. Please credit any overcharges and overpayments to the same Deposit Account.

## **I. REAL PARTY IN INTEREST**

The real party in interest is Aruze Corp., the assignee of record, which is a public corporation with its principal place of business in Tokyo, Japan. WMS Gaming Inc., which is a corporation organized and existing under the laws of the State of Delaware with its principal place of business in Waukegan, IL, is currently the exclusive licensee of this application.

## **II. RELATED APPEALS AND INTERFERENCES**

On March 5, 2008, a Pre-Appeal Brief Request for Review (hereinafter “Pre-Appeal Brief Request”) was filed concurrent with a Notice of Appeal. A Notice of Panel Decision from Pre-Appeal Brief Review was issued on December 18, 2008, withdrawing the pending claim rejections and reopening prosecution. Neither the reviewing Panel nor the B.P.A.I. ever rendered a substantive decision in response to Appellant’s Pre-Appeal Brief Request. There are no other prior or pending appeals, interferences, or judicial proceedings which are directly related to, directly affect, or have a direct bearing on the Board’s decision in this matter.

## **III. STATUS OF CLAIMS**

Claims 1-3 were originally presented in this application. Claims 4-10 were subsequently added via Appellant’s “Amendment under 37 C.F.R. § 1.111,” filed on August 17, 2006. Claims 3-10 were subsequently cancelled from further consideration, without prejudice or disclaimer, and new claims 11-19 were added via the Amendment filed on July 22, 2009. Claims 1, 2 and 11-19 were subsequently cancelled, without prejudice or disclaimer, and new claims 20-23 were added via Appellant’s “Amendment under 37 C.F.R. § 1.111,” filed on October 26, 2009. Claim 21 was then cancelled and claims 24-42 were contemporaneously added in Appellant’s “Amendment Accompanying RCE in Response to Final Office Action dated December 7, 2010,” which was filed on March 4, 2011. No other claims have since been cancelled, withdrawn or added. As such, claims 20 and 22-42 are pending in this application. No claims have been allowed by the Examiner. Claims 20 and 22-42 have each been rejected two or more times, while all of the pending claims currently stand finally rejected. Claims 20 and 22-42 are therefore the subject of this appeal.

#### **IV. STATUS OF AMENDMENTS**

There have been no amendments to the claims, specification, or drawings filed subsequent to the Final Office Action mailed on August 10, 2011 (hereinafter “Final Office Action”), from which this appeal is being taken. The claims under appeal were previously presented in Appellant’s “Response to Final Office Action Dated August 10, 2011,” which was filed on October 27, 2011 (hereinafter “Response after Final”). *See, id.*, § I, at 2-8. A listing of the claims on appeal is presented in the attached Appendices, *infra*, § IX, Claims on Appeal.

#### **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The subject disclosure relates generally to wagering games, gaming machines and wagering game systems. Much of the description set forth below is made with respect to the various representative embodiments depicted and described in the subject specification and accompanying drawings. These descriptive comparisons and exemplifications are made purely for explanatory purposes in compliance with 37 C.F.R. § 41.37(c)(1)(v). As such, the description provided below is not intended to be limiting and should not be construed as limiting the overall inventive subject matter.

##### **A. INDEPENDENT CLAIM 20**

Appellant’s base claim 20 is directed to “[a] gaming machine”. One such gaming machine is presented in a representative embodiment, for example, in FIG. 1 of the drawings, and discussed generally on page 5, line 6, through page 9, line 12, of the originally presented specification. The gaming machine of claim 20 includes, *inter alia*, “a variable display device for variably displaying symbols associated with an award”. *See, e.g.*, Abstract; FIGS. 1, 3, 6 and 7 (reels 2, 3 and 4); Spec., Pg. 2, Ln. 20-21, Pg. 5, Ln. 9-17, Pgs. 13, Ln. 10, -14, Ln. 12. “[A] front display device [is] disposed in front of the variable display device”. *See, e.g.*, Abstract; FIGS. 1 and 3 (reel display window unit 39); Spec., Pg. 2, Ln. 22-23, Pg. 5, Ln. 17-22, Pg. 9, Ln. 17-19.

The front display device of claim 20 includes, *inter alia*, “a display window for displaying the symbols of the variable display device,” *see, e.g.*, FIG. 1 (display windows 5, 6, 7); Spec., Pg. 5, Ln. 19-22, and “a transparent liquid crystal display panel for displaying an image for effect while transparently displaying the symbols of the variable display device,” *see,*

*e.g.*, Abstract; FIGS. 3 and 4 (liquid crystal panel 39d); Spec., Pg. 2, Ln. 23-26, Pg. 7, Ln. 21-25, Pg. 9, Ln. 13-24. “[A] light guiding plate [is] disposed between the transparent liquid crystal display panel and the variable display device.” *See, e.g.*, FIGS. 3 and 4 (light guiding plate 39g); Spec., Pg. 2, Ln. 26, Pg. 9, Ln. 19-26, Pg. 10, Ln. 21. The light guiding plate “guid[es] light from a lateral of the light guiding plate to a rear side of the transparent display panel, the light having been emitted from a light source”. *See, e.g.*, Pgs. 2, Ln. 26, -3, Ln. 2, Pg. 10, Ln. 20-23, Pg. 11, Ln. 7-12.

Independent claim 20 also includes “a rear holder for holding the transparent liquid crystal display panel and the light guiding plate,” *see, e.g.*, FIGS. 3 and 4 (rear holder 39h); Pg. 9, Ln. 26, Pg. 12, Ln. 13-19, and “a diffusion sheet disposed between the transparent liquid crystal display panel and the light guiding plate,” *see, e.g.*, FIGS. 3 and 4 (diffusion sheet 39f); Pg. 3, Ln. 3, Pg. 9, Ln. 25. The diffusion sheet “diffus[es] the light from the light guiding plate so as to equalize the light to be emitted from behind the transparent liquid crystal display panel”. *See, e.g.*, Pg. Pg. 3, Ln. 3-6, Pg. 11, Ln. 12-16. “[A]n illumination part [is] disposed at a rear side of the rear holder”. *E.g.*, FIG. 3 (cold-cathode tubes 40b); Pgs. 10, Ln. 23, -11, Ln. 1.

The light guiding plate, diffusion sheet, and rear holder of claim 20 “are provided with openings, respectively, at a position corresponding to the display window of the front display device, the openings for transparently displaying the symbols of the variable display device within the display window of the front display device”. *See, e.g.*, Abstract; FIGS. 3 and 4 (diffusion sheet openings 5a, 6a, 7a; light guiding plate openings 5b, 6b, 7b; rear holder openings 5c, 6c, 7c); Pg. 3, Ln. 6-9, Pg. 10, Ln. 1-11, Pg. 27, Ln. 22-25. “[T]he illumination part illuminates the display window of the front display device through the openings of the light guiding plate and the rear holder, and illuminates the symbols variably displayed on the variable display device”. *E.g.*, Abstract; FIG. 3; Pgs. 10, Ln. 23, -11, Ln. 1, Pg. 27, Ln. 1-13.

The front display device of claim 20 “displays the image for effect on a portion other than the display window, the image being displayed on the transparent liquid crystal display panel”. *See, e.g.*, Abstract; Pg. 3, Ln. 10-14, Pg. 7, Ln. 21-25, Pg. 23, Ln. 7-11, Pg. 26, Ln. 5-17, Pg. 27, Ln. 14-25. The front display device also “displays the image for effect and variably displays the symbols within the display window by illumination of the illumination part,

the image for effect being displayed on the transparent liquid crystal display panel, the symbols being displayed on the variable display device.” *See, e.g., id.*

## **B. INDEPENDENT CLAIM 24**

Independent claim 24 is directed to “[a] gaming machine,” such as the gaming machine presented in a representative embodiment, for example, in FIG. 1 of the drawings, and discussed generally on page 5, line 6, through page 9, line 12, of the originally presented specification. The gaming machine of claim 24 comprises, *inter alia*, “a variable display device including a plurality of symbol-bearing reels for displaying symbols associated with a game outcome of a wagering game”. *See, e.g.,* Abstract; FIGS. 1, 3, 6 and 7 (reels 2, 3 and 4); Spec., Pg. 2, Ln. 20-21, Pg. 5, Ln. 9-17, Pgs. 13, Ln. 10, -14, Ln. 12. In addition, “a front display device [is] disposed in front of the variable display device”. *See, e.g.,* Abstract; FIGS. 1 and 3 (reel display window unit 39); Spec., Pg. 2, Ln. 22-23, Pg. 5, Ln. 17-22, Pg. 9, Ln. 17-19.

The front display device of independent claim 24 “includ[es] a liquid crystal panel, a diffusion layer, a light guiding layer, and a reflection layer”. *See, e.g.,* FIGS. 3 and 4 (liquid crystal panel 39d; diffusion sheet 39f; light guiding plate 39g; and rear holder 39h); Spec., Pgs. 2, Ln. 23, -3, Ln. 6, Pg. 9, Ln. 20-26. The liquid crystal panel, diffusion layer, light guiding layer, and reflection layer “are arranged in a facially opposed sequential manner such that the diffusion layer is disposed between the liquid crystal panel and the light guiding layer, the light guiding layer is disposed between the diffusion layer and the reflection layer, and the reflection layer is disposed between the light guiding layer and the variable display device”. *See, e.g.,* FIGS. 3 and 4 (illustrates claimed sequential arrangement of foregoing elements); Pg. 4, Ln. 3-7, Pg. 9, Ln. 13-26.

The diffusion layer, light guiding layer, and reflection layer “each include a respective plurality of discrete viewing areas aligned with respective ones of the reels to permit viewing thereof”. *See, e.g.,* Abstract; FIGS. 3 and 4 (diffusion sheet openings 5a, 6a, 7a; light guiding plate openings 5b, 6b, 7b; rear holder openings 5c, 6c, 7c); Pg. 3, Ln. 6-9, Pg. 10, Ln. 1-11, Pg. 27, Ln. 22-25. “[A] light source [is] positioned to emit light into the light guiding layer”. *See, e.g.,* FIG. 3 (cold-cathode tubes 40a); Pgs. 2, Ln. 26, -3, Ln. 2, Pg. 10, Ln. 20-23, Pg. 11, Ln. 7-12. The diffusion layer “diffus[es] the light guided by the light guiding layer to equalize the

light that illuminates the liquid crystal panel,” *see, e.g.*, Pg. 3, Ln. 3-6, Pg. 11, Ln. 12-16, and “the reflection layer reflect[s] the light guided by the light guiding layer toward the liquid crystal panel,” Pg. 12, Ln. 13-23.

### C. INDEPENDENT CLAIM 28

Appellant’s independent claim 28, similar to claims 20 and 24, is also directed to “[a] gaming machine”. As indicated above, a representative gaming machine is portrayed, for example, by the slot machine 1 in FIG. 1 of the originally presented drawings, and discussed generally on pages 5 through 9 of the specification. The gaming machine set forth in claim 28 comprises, *inter alia*, “a variable display device including a symbol-bearing reel for displaying symbols associated with a game outcome of a wagering game”. *See, e.g.*, Abstract; FIGS. 1, 3, 6 and 7 (reels 2, 3 and 4); Spec., Pg. 2, Ln. 20-21, Pg. 5, Ln. 9-17, Pgs. 13, Ln. 10, -14, Ln. 12. “[A] front display device [is] disposed in front of the variable display device”. *See, e.g.*, Abstract; FIGS. 1 and 3 (reel display window unit 39); Spec., Pg. 2, Ln. 22-23, Pg. 5, Ln. 17-22, Pg. 9, Ln. 17-19.

The front display device of claim 28 includes, *inter alia*, “a liquid crystal panel, a diffusion layer, a light guiding layer, and a reflection layer”. *See, e.g.*, FIGS. 3 and 4 (liquid crystal panel 39d; diffusion sheet 39f; light guiding plate 39g; and rear holder 39h); Spec., Pgs. 2, Ln. 23, -3, Ln. 6, Pg. 9, Ln. 20-26. The aforementioned liquid crystal panel, diffusion layer, light guiding layer, and reflection layer “are arranged in a facially opposed sequential manner such that the diffusion layer is disposed between the liquid crystal panel and the light guiding layer, the light guiding layer is disposed between the diffusion layer and the reflection layer, and the reflection layer is disposed between the light guiding layer and the variable display device”. *See, e.g.*, FIGS. 3 and 4 (illustrates claimed sequential arrangement of foregoing elements); Pg. 4, Ln. 3-7, Pg. 9, Ln. 13-26.

The diffusion layer, light guiding layer, and reflection layer “each include a respective discrete viewing area aligned with the reel to permit viewing thereof”. *See, e.g.*, Abstract; FIGS. 3 and 4 (diffusion sheet openings 5a, 6a, 7a; light guiding plate openings 5b, 6b, 7b; rear holder openings 5c, 6c, 7c); Pg. 3, Ln. 6-9, Pg. 10, Ln. 1-11, Pg. 27, Ln. 22-25. The diffusion layer “diffuses the light guided by the light guiding layer to equalize the light that

illuminates the liquid crystal panel.” *See, e.g.*, Pg. Pg. 3, Ln. 3-6, Pg. 11, Ln. 12-16. The reflection layer, on the other hand, “reflect[s] the light guided by the light guiding layer toward the liquid crystal panel.” Pg. 12, Ln. 13-23.

#### **D. INDEPENDENT CLAIM 33**

Base claim 33 is directed to “[a] gaming machine,” such as the gaming machine represented, for example, by the slot machine 1 illustrated in FIG. 1, and described generally on page 5, line 6, through page 9, line 12, of the specification. The gaming machine of claim 33 comprises, *inter alia*, “a variable display device for displaying symbols associated with a game outcome of a wagering game”. *See, e.g.*, Abstract; FIGS. 1, 3, 6 and 7 (reels 2, 3 and 4); Spec., Pg. 2, Ln. 20-21, Pg. 5, Ln. 9-17, Pgs. 13, Ln. 10, -14, Ln. 12. “[A] front display device [is] disposed in front of the variable display device”. *See, e.g.*, Abstract; FIGS. 1 and 3 (reel display window unit 39); Spec., Pg. 2, Ln. 22-23, Pg. 5, Ln. 17-22, Pg. 9, Ln. 17-19.

The front display device of independent claim 33 “includ[es] a liquid crystal panel, a diffusion layer, and a light guiding layer”. *See, e.g.*, FIGS. 3 and 4 (liquid crystal panel 39d; diffusion sheet 39f; light guiding plate 39g); Spec., Pgs. 2, Ln. 23, -3, Ln. 6, Pg. 9, Ln. 20-26. The liquid crystal panel, diffusion layer, and light guiding layer “are arranged in a facially opposed sequential manner such that the diffusion layer is disposed between the liquid crystal panel and the light guiding layer and such that the light guiding layer is disposed between the diffusion layer and the variable display device”. *See, e.g.*, FIGS. 3 and 4 (illustrates claimed sequential arrangement of foregoing elements); Pg. 4, Ln. 3-7, Pg. 9, Ln. 13-26.

The diffusion layer “diffuses light guided by the light guiding layer to equalize the light that illuminates the liquid crystal panel”. *See, e.g.*, Pg. 3, Ln. 3-6, Pg. 11, Ln. 12-16. The diffusion layer “includ[es] discrete viewing areas for viewing the symbols of the variable display device.” *See, e.g.*, Abstract; FIGS. 3 and 4 (diffusion sheet openings 5a, 6a, 7a); Pg. 3, Ln. 6-9, Pg. 10, Ln. 1-11, Pg. 27, Ln. 22-25.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Whether claims 20 and 22-42 are unpatentable under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Application Publ. No. 2005/0192090 A1, to Muir et al. (hereinafter “Muir”), in view of U.S. Patent No. 5,673,128, to Ohta (hereinafter “Ohta”), and U.S. Patent No. 6,638,165 B2, to Uchiyama et al. (hereinafter “Uchiyama”).

## **VII. ARGUMENTS**

### **A. LEGAL SUMMARY - 35 U.S.C. 103**

A proper rejection under Section 103(a) of the U.S. Patent Act requires the examiner establish *prima facie* obviousness. The legal concept of *prima facie* obviousness is a procedural tool of examination, allocating who - the examiner or the applicant - has the burden of going forward with a requisite production of evidence in each step of the examination process. *See* MPEP 2142. *See, also, In re Rinehart*, 531 F.2d 1048 (C.C.P.A. 1976); *In re Linter*, 458 F.2d 1013 (C.C.P.A. 1972). Of notable importance, “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” MPEP 2142 (emphasis in original). *See, also*, MPEP 2106 (“The burden is on the USPTO to set forth a *prima facie* case of unpatentability.”); *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Consequently, “[i]f the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.” MPEP 2142 (italicized emphasis in original; bold emphasis added). *See, also, In re Piasecki*, 745 F.2d 1468, 1471-72 (Fed. Cir. 1984).

To properly substantiate a *prima facie* case of obviousness under § 103(a) requires the applied prior art references be shown to teach, suggest, or otherwise disclose each and every element and limitation of the rejected claims. *See, e.g., In re Kotzab*, 217 F.3d 1365, 1369-71 (Fed. Cir. 2000); *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974). Indeed, as the Board of Patent Appeal and Interferences confirmed in the case of *Ex parte Wada and Murphy*, the failure of an asserted combination to teach or suggest each and every limitation of a claim is fatal to an obviousness rejection under § 103(a). Appeal No. 2007-3733, Slip Op. at 7 (B.P.A.I. January 14, 2008), citing *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342 (Fed. Cir. 2003). The necessary presence of all claim features is axiomatic,



since the Supreme Court has long held that obviousness is a question of law based on underlying factual inquiries, including ascertaining the differences between the claimed invention and the prior art. *See Graham v. John Deere Co.*, 383 U.S. 1 (1966). For that reason, **the examiner may not opportunistically disregard any of the characterizing claim limitations; rather, “[every] word[] in a claim must be considered in judging the patentability of a claim against the prior art.”** *In re Wilson*, 424 F.2d 1382, 1385 (C.C.P.A. 1970) (emphasis added). In effect, “[w]hen determining whether a claim is obvious, an examiner must make ‘a searching comparison of the claimed invention - including all its limitations - with the teaching of the prior art.’” *In re Ochiai*, 71 F.3d 1565, 1572 (Fed. Cir. 1995).

In addition to demonstrating that the applied art teaches every element and limitation of a rejected claim, **the law of obviousness also requires the reviewing examiner to clearly articulate “an apparent reason” why a person skilled in the art would be compelled to combine “the known elements” to achieve the invention claimed.** *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (emphasis added). *See, also*, MPEP 2143 (“The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious.”) “[R]ejections on obviousness **cannot be sustained with mere conclusory statements**; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (emphasis added). To that extent, the mere fact that references can be combined or modified does not render the resultant combination obvious. *See* MPEP 2143.01(III).

The Supreme Court has clarified that **“a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.”** *KSR Int’l*, 127 S. Ct. at 1741 (emphasis added). As previously acknowledged by the Federal Circuit, “[m]ost if not all inventions arise from a combination of old elements.” *In re Kotzab*, 217 F.3d 1365, 1369 (Fed. Cir. 2000). *See, also, In re Rouffet*, 149 F.3d 1350, 1357 (Fed.Cir. 1998). In light of this fact, piecemeal identification in the prior art of each individual part claimed “is insufficient to defeat patentability of the whole claimed invention”. *See Kotzab*, 217 F.3d at 1369. *See, also, In re Dance*, 160 F.3d 1339, 1343 (Fed. Cir. 1998). Rather, there must be **“an apparent reason” in the prior art “to combine the**

**known elements in the fashion claimed by the [applicant]”.** *KSR Int’l*, 127 S. Ct. at 1742 (emphasis added).

For at least the reasons stated below, Appellant respectfully submits that the Examiner has not set forth a *prima facie* case of obviousness under 35 U.S.C. § 103 against any of the pending claims.

**B. THE MUIR, OHTA AND UCHIYAMA REFERENCES DO NOT TEACH OR SUGGEST EACH AND EVERY LIMITATION OF THE PENDING CLAIMS.**

The Muir, Ohta and Uchiyama references, both singly and in combination, do not disclose, teach, or otherwise suggest each and every limitation of the pending claims. By way of example, independent claim 1 includes, *inter alia*:

1. a light guiding plate between the transparent liquid crystal display panel and the variable display device, the light guiding plate guiding light from a lateral of the light guiding plate to a rear side of the transparent display panel;
2. a diffusion sheet between the transparent liquid crystal display panel and the light guiding plate, the diffusion sheet diffusing the light from the light guiding plate to equalize the light emitted from behind the transparent liquid crystal display panel;
3. an illumination part disposed at a rear side of the rear holder; and
4. the light guiding plate, diffusion sheet, and rear holder each being provided with respective openings at a position corresponding to the display window of the front display device, the openings transparently displaying the symbols of the variable display device within the display window of the front display device.

Muir, Ohta and Uchiyama fail to disclose each and every one of above enumerated limitations.

In the Final Office Action, the Examiner acknowledges that Muir fails to disclose several elements and limitations set forth in the pending claims. For instance:

The display device taught by Muir does not specifically teach a light guide plate disposed between the transparent liquid crystal display panel and the variable display device, the light guiding plate for guiding light from a lateral of the guide guiding plate to a rear side of the transparent panel, the light having been emitted from a light source via the backlighting panel.

Final Office Action, at 6. The Final Office Action also concedes that “Muir is silent specifically describing [*sic*] a light guiding plate and a rear holder to be provided with openings respectively at a position corresponding to the display window,” Final Office Action, at 7, and “is silent with

respect to producing an effect on a portion other than the display window and the specific use of a diffusion sheet incorporated into a LCD display, *id.*, at 8.

To overcome the elements and limitations omitted from Muir, and especially the lack of the distinct “diffusion layer” in each of the pending independent claims, the Examiner turns to the teachings of Ohta since “the implementation of a diffusions sheet or light guiding plate is not a change or modification of the Muir reference,” because “[t]hese elements are basic elements of the disclosed LCD display device.” Final Office Action, at 3. Then, when relying on Ohta to explain why Muir’s LCD must include the “inherent” diffusion layer, the Examiner relies on reference Figure 1 at the top of page 4 that is NOT from Ohta’s disclosure. The Examiner then concludes “it is through this teaching that shows how Muir’s disclosed LCD display incorporates the claimed elements of a diffusion sheet and light guiding plate though the use of an LCD display.” Final Office Action, at 4. The Examiner has failed to make a *prima facie* showing of obviousness against any of the pending claims by presenting sufficient evidence to show that (1) the applied references, in combination, inherently includes all of Applicant’s claim limitations, or (2) the applied references, in combination, explicitly teaches all of Applicant’s claim limitations.

***A. The Examiner’s Inherency Arguments are Factually Erroneous and Legally Inadequate – Independent Claims 20, 24, 28 and 33***

In the Advisory Action issued on November 4, 2011, the Examiner tries to ameliorate the impropriety of the various inherency arguments presented in the Final Office Action by contending that no such argument was ever made, mainly because “the term ‘inherency’ has *only* been used in the response to arguments section.” *Id.*, (Continuation Sheet, ¶ 2; emphasis added). First and foremost, the allegation that “the term ‘inherency’ has *only* been used in the response to arguments section” is patently false. For example, on page 10 of the Final Office Action, at Item No. 11, which is part of the “main body” of the § 103(a) claim rejections, the Examiner argues that “the instant claims are directed towards attributes *that are inherent* with a light guiding plate.” (Emphasis added.) Other instances of allegedly inherent teachings are presented by the Examiner in the Office Action issued on March 30, 2011. *See, e.g., id.*, Item No. 10, at 7 and 8, and Item No. 13, at 10. Secondly, for purposes of examination,

there is no distinction that Appellant can find – in the MPEP, case law, statutes, or otherwise – that distinguishes between substantive remarks set forth in the response to arguments section versus the “main body” of the rejection. Lastly, the Examiner explicitly characterizes Muir’s diffusion layer as “inherent” on the first substantive page of the Final Office Action. Consequently, there was no misunderstanding on the Appellant’s part regarding the inherency arguments presented in the Final Office Action, now proffered by the Examiner in an attempt to overshadow the deficiency in those very same inherency arguments.

Nevertheless, the facts at hand do not support the Examiner’s position that Muir inherently or obviously includes Appellant’s claimed “diffusion layer.” Muir teaches an LCD display device that involves an edge-lit system, not a back-lit system. In other words, the illuminating elements 83 in Muir are at the top edge and bottom edge of the light panel 84. While the Examiner continues to assert that diffusion layers are inherent in or obviously a part of all LCD displays, in actual fact a distinct diffusion layer is not required to make all LCD display operate, especially edge-lit configurations like the one presented in Muir. For example, Exhibit 1 (attached) discusses the difference between edge-lit LCD’s and back-lit LCD’s, and notes that a light guide plate in an edge-lit LCD can be configured such that “a diffuser panel is not required.” Ex. 1, p. 2. Likewise, U.S. Patent Application Publication No. 2010/0321609, which is entitled “Edge-Lit Backlight Unit with Thin Profile,” explicitly discusses the omission of a diffusion layer in alternative embodiments. *See, e.g.*, Ex. 2 at ¶¶ 70-73. Furthermore, the backlighting of an LCD is not a binary feature in which “you have it or you don’t.” There are varying degrees of backlighting, all of which provide some level of backlighting (a lot or a little) depending on the type of functionality needed by that particular system. Even Muir acknowledges this fact by noting “the visual impact imparted by the LCD is enhanced by an illuminating layer in the form of a backlighting arrangement 82.” Muir, ¶66. By noting the backlighting arrangement 82 “enhances” the LCD’s visual impact, Muir is teaching that LCD has some visual impact and is functional without the backlighting. In summary, contrary to the Examiner’s suggestion, it is known that LCDs can have different backlighting arrangements, some of which may not require a separate diffusion layer (just like Muir’s LCD system).

While Muir’s teaching for the construction of the multi-layered LCD structure 50 is clear, the basis for Muir’s reasoning for constructing the LCD 50 in the manner shown is not

as clear. Knowing that a player needed to see the reels behind the LCD 50, perhaps Muir specifically chose to exclude a diffusion layer adjacent to the light panel 84 to provide a clearer viewing of the reels. Perhaps an evenly lit (or well lit) LCD was not a requirement for Muir. Or, perhaps Muir knew that he could utilize the shutter 76 that is directly adjacent to the light panel 84 to help diffuse some of the light from the illuminating elements 83 or provide additional lighting contrast, thereby resulting in more visually perceptible images across the LCD panel 68. It is noteworthy that Muir's shutter 76 is formed of a NCAP liquid crystal, which by itself could enhance the lighting contrast with the front LCD panel 68. The Appellant (and the Examiner) could speculate about the reasons why Muir selected the particular LCD construction 50 that is disclosed. But, for purposes of examination, what matters is what Muir did and did not, in fact, teach.

Regarding any remaining allegations of inherency, if the Examiner so wishes to maintain or discard these contentions, it was the Examiner's burden to prove that the prior art inherently includes the missing claim element.

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, *the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities.* ...

"In relying upon the theory of inherency, *the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.*" Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original) (... The Board reversed on the basis that the examiner did not provide objective evidence or cogent technical reasoning to support the conclusion of inherency.)

MPEP 2112 (bold emphasis added). The Appellant has now provided the Examiner with evidence that not all LCDs "necessarily" require a separate diffusion layer. The inclusion of a separate diffusion layer is therefore, at best, a "possibility" which cannot serve as a basis for inherency. In summary, the Examiner has failed to meet his burden regarding the issue of inherency and the rejection fails on that reason alone.

***B. The Applied References do not Teach a Diffusion Layer with “Openings” –  
Claims 20, 25, 29 and 37***

Even if the Appellant were to suppose, purely for sake of argument, that Muir inherently or obviously includes the claimed “diffusion layer” (which Appellant does not), that argument could not be extended to then force the diffusion layer to include “openings” as required by many of the claims. That is an improper basis for a rejection which is grounded in hindsight. The Examiner has focused on the pending claims and improperly constructed this rejection by taking what Muir does not disclose (i.e., a diffusion layer) and then modifying Muir’s undisclosed feature (Ohta’s diffusion sheet) to incorporate openings in order to match it with the Appellant’s claims. The record, after removing the conclusory, self-serving allegations set forth by the Examiner, *e.g.*, Final Office action, at 5, is wholly absent any factual evidence to support a *prima facie* conclusion that the Ohta’s diffusion layer should or would be modified to include openings in the manner claimed by Appellant. These facts strongly suggest the current rejection is based on a hindsight reconstruction of the claims in which the Applicant’s own specification has been used as the blueprint for the rejection. *See* MPEP 2145(X)(A), quoting *In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971).

***C. The Applied References do not Teach a Light Guiding Layer with “Openings” –  
Claims 20, 25, 29 and 37***

According to the Examiner, the light panel 84 set forth in Muir corresponds to Appellant’s claimed “light guiding plate.” *See, e.g.*, Final Office Action, at 6-8, Item Nos. 8-10. Because Muir’s light panel 84 is illustrated as a solid unitary piece, the Examiner further suggests that the skilled artisan would have obviously placed openings in that backlighting panel 84, as required by many of the claims. *See, e.g., id.* Once again, after disregarding the conclusory self-serving allegations presented in the Final Office Action, there is nothing on the record, or in the references themselves, to support the foregoing conclusion.

Muir, Ohta, and Uchiyama, when evaluated separately and in combination, do not teach a light guiding layer/plate with openings, as claimed by Appellant. This omission is acknowledged on numerous occasions by the Examiner. *See, e.g.*, Final Office Action, at 7. In

addition, there is no apparent reason or motivation to modify Muir to include openings, as the Examiner would suggest. Muir had a reason to not include openings in the lighting panel 84. Muir teaches that the shutter 76 is present to provide an opaque structure behind Muir's LCD 50, such that the shutter 76 occludes the viewing of the symbols on the reels 18. Muir, ¶ 65. Accordingly, Muir's desire was to provide an alternative game play on the LCD 50 such that the alternative "game play is to be effected using the LCD 50 alone" when the shutter 76 is opaque. Muir, ¶ 67. If the lighting panel 84 were provided with the hypothetical openings as suggested by the Examiner, then it would create an inconsistent backlighting for Muir's LCD, leading to the inside edges (which have a thickness) of the Examiner's hypothetical openings being viewable in sharp contrast to the opaque (i.e., darkened) shutter 76 located directly therebehind. Impairing the presentation of the alternative game play on the LCD is surely not what Muir had in mind. Accordingly, the Examiner's solution (i.e., the Examiner's motivation to add openings) to the alleged problem of "obstruction of symbols by another display device disposed in front of the symbol display device" (Final Office Action, pp. 4-5) creates an entirely different problem of impairing the presentation of the alternative game play on Muir's LCD 50. In summary, the Examiner's alteration of Muir's LCD construction should not override the specific LCD construction that Muir, himself, chose.

***D. The Applied References have not been shown to Teach or Suggest the claimed Illumination Part – Claims 20 and 22***

Independent claim 20 recites "an illumination part *disposed at a rear side of the rear holder*" that "illuminates the display window of the front display device *through the openings of the light guiding plate and the rear holder*, and illuminates the symbols variably displayed on the variable display device". (Emphasis added.) Claim 22, which depends directly from claim 20, clarifies that the illumination part includes "a second light source for illuminating the symbols from a front side, *the second light source being disposed at a periphery portion of a rear surface side of the opening of the rear holder*". (Emphasis added.) Heretofore, the Examiner has not shown anything by way of evidence to establish that any of the applied references explicitly or implicitly discloses these features. In a veiled attempt to address these features, the Examiner summarily dismisses the limitations as "obvious matter[s] of design

choice”. Final Office Action, at 10. Respectfully, these so called “obvious matters of design choice” are explicit claim elements that are characterized by explicit claim limitations and should, according to MPEP and judicial mandate, be accorded proper weight. *See, e.g.*, MPEP 2142 (the examiner bears the initial burden of factually supporting a *prima facie* conclusion of obviousness); *Ochiai*, 71 F.3d at 1572 (“an examiner must make ‘a searching comparison of the claimed invention - including all its limitations’”). Since no such consideration has been accorded, the Examiner failed to present a *prima facie* case of obviousness against either of these claims.

***E. The Applied References have not been shown to Teach or Suggest the claimed Illumination Part – Claim 23***

Claim 23 requires the rear holder of independent claim 20 have “a function of reflecting on the transparent liquid crystal display panel, the light emitted from the light source to the lateral of the light guiding plate.” The Final Office Action does not address this requirements. Appellant’s review of the applied references has likewise failed to provide such a teaching. Since no such consideration has been accorded to claim 23, the Examiner failed to present a *prima facie* case of obviousness against this claim.

For at least the foregoing reasons, Appellant submit that the pending § 103(a) rejections of claims 20 and 22-42 are improper and erroneous. Appellant therefore respectfully requests this Honorable Board to reverse the Examiner at least upon the grounds set forth above.



### **VIII. SUMMARY**

Appellants respectfully solicit this Honorable Board to reverse the pending 35 U.S.C. § 103(a) rejections of claims 20 and 22-42 for at least the grounds noted above.

The fee of \$620.00 required by 37 C.F.R. §41.20(b)(2) (effective September 26, 2011) is submitted herewith.

All fees due in connection with this Appeal Brief are believed to have been paid contemporaneously herewith. However, should any additional fees be deemed necessary, the Commissioner is hereby authorized to charge Nixon Peabody, LLP, Deposit Account No. 50-4181, Order No. 247079-000772USPT, for any fees that may be inadvertently omitted which may be necessary now or during the pendency of this application, except for payment of the issue fee. Please credit any overcharges and overpayments to the same Deposit Account.

Respectfully submitted,

Date: January 27, 2012

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**ENCLOSURES: Appendices IX-XI**

**IX. APPENDIX - CLAIMS ON APPEAL**

1-19. (CANCELLED)

20. (PREVIOUSLY PRESENTED) A gaming machine comprising:

a variable display device for variably displaying symbols associated with an award;

a front display device disposed in front of the variable display device, the front display device including:

a display window for displaying the symbols of the variable display device;

a transparent liquid crystal display panel for displaying an image for effect while transparently displaying the symbols of the variable display device;

a light guiding plate disposed between the transparent liquid crystal display panel and the variable display device, the light guiding plate for guiding light from a lateral of the light guiding plate to a rear side of the transparent display panel, the light having been emitted from a light source;

a rear holder for holding the transparent liquid crystal display panel and the light guiding plate;

a diffusion sheet disposed between the transparent liquid crystal display panel and the light guiding plate, the diffusion sheet for diffusing the light from the light guiding plate so as to equalize the light to be emitted from behind the transparent liquid crystal display panel; and

an illumination part disposed at a rear side of the rear holder,

and wherein:

the light guiding plate, the diffusion sheet, and the rear holder are provided with openings, respectively, at a position corresponding to the display window of the front display device, the openings for transparently displaying the symbols of the variable display device within the display window of the front display device;

the illumination part illuminates the display window of the front display device through the openings of the light guiding plate and the rear holder, and illuminates the symbols variably displayed on the variable display device;

the front display device displays the image for effect on a portion other than the display window, the image being displayed on the transparent liquid crystal display panel; and

the front display device displays the image for effect and variably displays the symbols within the display window by illumination of the illumination part, the image for effect being displayed on the transparent liquid crystal display panel, the symbols being displayed on the variable display device.

21. (CANCELLED)

22. (PREVIOUSLY PRESENTED) The gaming machine according to claim 20, wherein:

the illumination part includes a first light source for illuminating the symbols from a rear side, the first light source being disposed at the variable display device and a second light source for illuminating the symbols from a front side, the second light source being disposed at a periphery portion of a rear surface side of the opening of the rear holder; and

the first light source and the second light source illuminate the display window of the front display device through the openings of the light guiding plate and the rear holder.

23. (PREVIOUSLY PRESENTED) The gaming machine according to claim 20, wherein:

the rear holder has a function of reflecting on the transparent liquid crystal display panel, the light emitted from the light source to the lateral of the light guiding plate.

24. (PREVIOUSLY PRESENTED) A gaming machine comprising:

a variable display device including a plurality of symbol-bearing reels for displaying symbols associated with a game outcome of a wagering game;

a front display device disposed in front of the variable display device, the front display device including a liquid crystal panel, a diffusion layer, a light guiding layer, and a reflection layer, wherein the liquid crystal panel, the diffusion layer, the light guiding layer, and the reflection layer are arranged in a facially opposed sequential manner such that the diffusion

layer is disposed between the liquid crystal panel and the light guiding layer, the light guiding layer is disposed between the diffusion layer and the reflection layer, and the reflection layer is disposed between the light guiding layer and the variable display device, wherein the diffusion layer, the light guiding layer, and the reflection layer each include a respective plurality of discrete viewing areas aligned with respective ones of the reels to permit viewing thereof; and

a light source positioned to emit light into the light guiding layer, the diffusion layer diffusing the light guided by the light guiding layer to equalize the light that illuminates the liquid crystal panel, the reflection layer reflecting the light guided by the light guiding layer toward the liquid crystal panel.

25. (PREVIOUSLY PRESENTED) The gaming machine of claim 24, wherein the plurality of discrete viewing areas are openings.

26. (PREVIOUSLY PRESENTED) The gaming machine of claim 24, wherein each discrete viewing area is generally rectangular in shape.

27. (PREVIOUSLY PRESENTED) The gaming machine of claim 24, wherein the liquid crystal panel displays game effects of the wagering game.

28. (PREVIOUSLY PRESENTED) A gaming machine comprising:

a variable display device including a symbol-bearing reel for displaying symbols associated with a game outcome of a wagering game; and

a front display device disposed in front of the variable display device, the front display device including a liquid crystal panel, a diffusion layer, a light guiding layer, and a reflection layer, wherein the liquid crystal panel, the diffusion layer, the light guiding layer, and the reflection layer are arranged in a facially opposed sequential manner such that the diffusion layer is disposed between the liquid crystal panel and the light guiding layer, the light guiding layer is disposed between the diffusion layer and the reflection layer, and the reflection layer is disposed between the light guiding layer and the variable display device, wherein the diffusion

layer, the light guiding layer, and the reflection layer each include a respective discrete viewing area aligned with the reel to permit viewing thereof; and

wherein the diffusion layer diffuses the light guided by the light guiding layer to equalize the light that illuminates the liquid crystal panel, the reflection layer reflecting the light guided by the light guiding layer toward the liquid crystal panel.

29. (PREVIOUSLY PRESENTED) The gaming machine of claim 28, wherein each discrete viewing area is an opening.

30. (PREVIOUSLY PRESENTED) The gaming machine of claim 28, wherein each discrete viewing area is generally rectangular in shape.

31. (PREVIOUSLY PRESENTED) The gaming machine of claim 28, wherein the liquid crystal panel displays game effects of the wagering game.

32. (PREVIOUSLY PRESENTED) The gaming machine of claim 28, further including a light source positioned to emit the light into the light guiding layer.

33. (PREVIOUSLY PRESENTED) A gaming machine comprising:

a variable display device for displaying symbols associated with a game outcome of a wagering game; and

a front display device disposed in front of the variable display device, the front display device including a liquid crystal panel, a diffusion layer, and a light guiding layer, wherein the liquid crystal panel, the diffusion layer, and the light guiding layer are arranged in a facially opposed sequential manner such that the diffusion layer is disposed between the liquid crystal panel and the light guiding layer and such that the light guiding layer is disposed between the diffusion layer and the variable display device; and

wherein the diffusion layer diffuses light guided by the light guiding layer to equalize the light that illuminates the liquid crystal panel, the diffusion layer including discrete viewing areas for viewing the symbols of the variable display device.

34. (PREVIOUSLY PRESENTED) The gaming machine of claim 33, wherein the light guiding layer includes second discrete viewing areas, aligned with the discrete viewing areas in the diffusion layer, for viewing the symbols of the variable display device.

35. (PREVIOUSLY PRESENTED) The gaming machine of claim 33, further including a reflection layer disposed between the light guiding layer and the variable display device, the reflection layer reflecting the light guided by the light guiding layer toward the liquid crystal panel, the reflection layer including second discrete viewing areas, aligned with the discrete viewing areas in the diffusion layer, for viewing the symbols of the variable display device.

36. (PREVIOUSLY PRESENTED) The gaming machine of claim 35, wherein the light guiding layer includes third discrete viewing areas, aligned with the discrete viewing areas in the diffusion layer and the second discrete viewing areas in the reflection layer, for viewing the symbols of the variable display device.

37. (PREVIOUSLY PRESENTED) The gaming machine of claim 33, wherein the discrete viewing areas are openings in the diffusion layer.

38. (PREVIOUSLY PRESENTED) The gaming machine of claim 33, wherein each discrete viewing area is generally rectangular in shape.

39. (PREVIOUSLY PRESENTED) The gaming machine of claim 33, wherein the variable display device includes a plurality of symbol-bearing reels, the discrete viewing areas in the diffusion layer being aligned with respective ones of the reels.

40. (PREVIOUSLY PRESENTED) The gaming machine of claim 39, further including a reflection layer disposed between the light guiding layer and the variable display device, the reflection layer reflecting the light guided by the light guiding layer toward the liquid crystal panel, the reflection layer including second discrete viewing areas aligned with the discrete viewing areas in the diffusion layer and with the respective ones of the reels.

41. (PREVIOUSLY PRESENTED) The gaming machine of claim 33, further including a light source positioned to emit the light into the light guiding layer.

42. (PREVIOUSLY PRESENTED) The gaming machine of claim 33, wherein the liquid crystal panel displays game effects of the wagering game.

**X. APPENDIX – EVIDENCE**

- A. “Full Array vs Edge-lit LED LCD Comparison,” Presentation Technology Reviews (Feb. 20, 2010), retrieved on October 26, 2011, from <http://www.presentationtek.com/2010/20/20/full-array-vs-edge-lit-led-lcd-comparison>.
- B. U.S. Patent Application Publication No. 2010/0321609 A1, to Jun Qi et al. (Dec. 23, 2010).

**XI. APPENDIX – RELATED PROCEEDINGS**

None.